

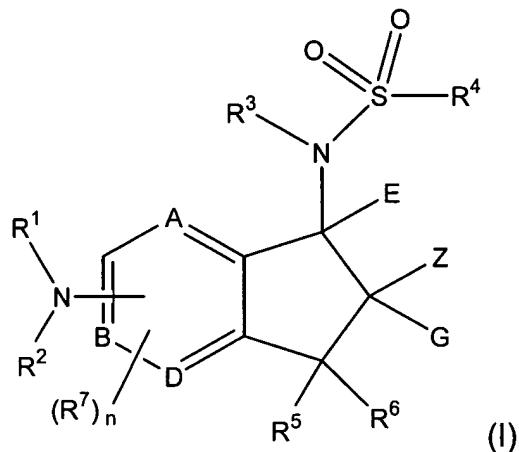
**IN THE CLAIMS:**

Please make the following amendment to claim 22:

**THIS FOLLOWING LISTING OF CLAIMS REPLACES ALL PRIOR VERSIONS OF CLAIMS IN THE APPLICATION:**

**Listing of claims**

1. (Previously amended) A compound having potassium channel inhibitory activity of formula (I), or a pharmaceutically acceptable salt thereof:



wherein,

A, B, and D are substituted carbon atoms;

E is hydrogen, or alkyl; G is hydrogen, or alkyl; or E and G taken together form a bond (site of unsaturation);

R<sup>1</sup> is selected from hydrogen, alkyl, carbocycloalkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, and (heteroaryl)alkyl;

R<sup>2</sup> is selected from alkyl, carbocycloalkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, and (heteroaryl)alkyl, each of which may be optionally substituted;

R<sup>3</sup> is selected from hydrogen (H), alkyl, carbocycloalkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, aminoalkyl; substituted aminoalkyl, carboxyalkyl, alkoxyalkanoyl, aminoalkanoyl, substituted aminoalkanoyl, alkanoylamidoalkyl, alkanoyl(substituted amido)alkyl, aroylamidoalkyl, aroyl(substituted amido)alkyl, heterocyclocarbonylamidoalkyl, heterocyclocarbonyl(substituted amido)alkyl, heteroaroylamidoalkyl, and heteroaroyl(substituted amido)alkyl;

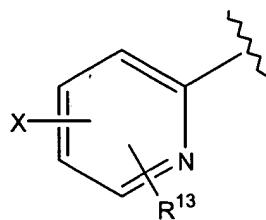
R<sup>4</sup> is selected from alkyl, carbocycloalkyl, aryl, (aryl)alkyl, heteroaryl and heterocyclo;

R<sup>5</sup> and R<sup>6</sup> are each independently selected from hydrogen, fluoro and alkyl, or R<sup>5</sup> and R<sup>6</sup> taken together, along with the carbon atom to which they are both attached, form a 3-membered to 7-membered carbocyclic, or heterocyclic ring;

R<sup>7</sup> is independently selected from hydrogen, alkyl, hydroxy, alkoxy, amino, substituted amino, nitro, cyano, halo, carboxy, alkoxycarbonyl, aminocarbonyl, substituted aminocarbonyl and n is 1, 2 or 3; and

Z is selected from hydrogen, alkyl, hydroxy, SH, alkoxy, aryloxy, alkylthio, amino, substituted amino, alkoxycarbonyl, alkanoylamido, aroylamido, heterocyclocarbonylamido, heteroaroylamido, alkanoyl(alkylsubstituted) amido, aroyl(alkylsubstituted)amido, heteroaroyl(alkylsubstituted)amido, and heterocyclocarbonyl(alkyl substituted)amido.

2. (Previously Amended) The compound of claim 1 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein R<sup>2</sup> is



wherein

X is selected from substituted amino, -N(R<sup>8</sup>)COR<sup>9</sup>, -N(R<sup>8</sup>)SO<sub>2</sub>R<sup>10</sup>, and -CO-NR<sup>11</sup>R<sup>12</sup>;

R<sup>8</sup> is selected from hydrogen (H), alkyl, aryl and heteroaryl;

R<sup>9</sup> is selected from alkyl, carbocycloalkyl, alkenyl, alkynyl, aryl, alkoxy, aryloxy, heterocyclo, heteroaryl, (aryl)alkyl, (heteroaryl)alkyl, amino and substituted amino;

R<sup>10</sup> is selected from alkyl, carbocycloalkyl, aryl, heterocyclo and heteroaryl;

R<sup>11</sup> and R<sup>12</sup> are independently selected from hydrogen(H), alkyl, carbocycloalkyl, aryl, heterocyclo, heteroaryl, (aryl)alkyl, (heterocyclo)alkyl, (heteroaryl)alkyl, aminoalkyl, and substituted aminoalkyl, or R<sup>11</sup> and R<sup>12</sup> taken together with the nitrogen atom to which they are attached form a 4-membered to 8-membered heterocyclic ring;

R<sup>13</sup> is selected from hydrogen (H), alkyl, aryl, hydroxy, alkoxy, amino, substituted amino, nitro, cyano and halo.

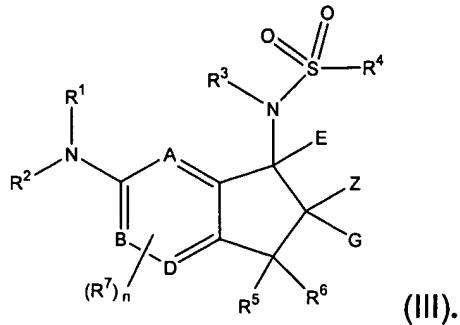
3. (Previously Amended) The compound of claim 1 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein E, G and R<sup>7</sup> are each hydrogen and n is 3.

4. (Previously Amended) The compound of claim 3 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein, R<sup>5</sup> and R<sup>6</sup> are each hydrogen.

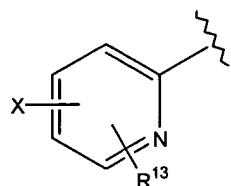
5. (Previously Amended) The compound of claim 2 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein E, G and R<sup>7</sup> are each hydrogen and n is 3.

6. (Previously Amended) The compound of claim 5 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein, R<sup>5</sup> and R<sup>6</sup> are each hydrogen.

7. (Previously Amended) The compound of claim 1 having potassium channel inhibitory activity, said compound having the following formula (III), or a pharmaceutically acceptable salt thereof:



8. (Previously Amended) The compound of claim 7 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein R<sup>2</sup> is



wherein

X is selected from -N(R<sup>8</sup>)COR<sup>9</sup> and -CO-NR<sup>11</sup>R<sup>12</sup>;

R<sup>8</sup> is selected from H and alkyl;

R<sup>9</sup> is selected from alkyl, carbocycloalkyl, alkenyl, alkynyl, aryl, alkoxy, aryloxy, heterocyclo, heteroaryl, (aryl)alkyl, (heteroaryl)alkyl, amino and substituted amino;

R<sup>11</sup> and R<sup>12</sup> are independently selected from hydrogen(H), alkyl, carbocycloalkyl, aryl, heterocyclo, heteroaryl, (aryl)alkyl, (heterocyclo)alkyl, (heteroaryl)alkyl, aminoalkyl, and substituted aminoalkyl, or R<sup>11</sup> and R<sup>12</sup> taken together with the nitrogen atom to which they are attached form a 4-membered to 8-membered heterocyclic ring; and

R<sup>13</sup> is selected from hydrogen, alkyl, hydroxy, alkoxy, amino, substituted amino, nitro, cyano and halo.

9. (Previously Amended) The compound of claim 7 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein E, G and R<sup>7</sup> are each hydrogen and n is 3.

10. (Previously Amended) The compound of claim 9 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein, R<sup>5</sup> and R<sup>6</sup> are each hydrogen.

11. (Previously Amended) The compound of claim 8 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein E, G and R<sup>7</sup> are each hydrogen and n is 3.

12. (Previously Amended) The compound of claim 11 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof wherein, R<sup>5</sup> and R<sup>6</sup> are each hydrogen.

13. (Previously Amended) The compound of claim 1, 3, 4, 7, 9 or 10 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof, wherein R<sup>3</sup> is selected from hydrogen and alkyl; R<sup>4</sup> is selected from aryl and heteroaryl and Z is selected from hydrogen, hydroxyl, amino and substituted amino.

14. (Previously Amended) The compound of claim 2, 5, 6, 8, 11, or 12 having potassium channel inhibitory activity, or a pharmaceutically acceptable salt thereof, wherein R<sup>3</sup> is selected from hydrogen and alkyl; R<sup>4</sup> is selected from aryl and heteroaryl and Z is selected from hydrogen, hydroxyl, amino and substituted amino.

15. (Previously Amended) A pharmaceutical composition comprising the compound of claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12, or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable diluent or carrier.

16. (Previously Amended) A pharmaceutical composition comprising the compound of claim 13, or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable diluent or carrier.

17. (Previously Amended) A pharmaceutical composition comprising the compound of claim 14, or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable diluent or carrier.

18. (Original) A method for inhibiting potassium transport across cellular membranes possessing potassium channels comprising exposing a cell membrane possessing said channels to the presence of a compound of claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12, or a pharmaceutically acceptable salt or prodrug thereof.

19. (Original) The method of claim 18 wherein the potassium channel is a voltage gated potassium channel.

20. (Original) The method of claim 19 wherein the potassium channel is selected from a potassium channel responsible for cardiac  $I_{Kur}$  potassium current, a potassium channel responsible for T-lymphocyte  $I_{Kn}$  potassium current and potassium channels containing one of Kv1.5 or Kv1.3  $\alpha$ -subunit gene products.

21. (Original) A method for treating cardiac arrhythmias which comprises administering to a patient in need thereof, a pharmaceutically effective amount of a compound of claim 1, 2, 3, 4, 5, 6, or 7, or a pharmaceutically acceptable salt or prodrug thereof.

22. (Currently Amended) A method for treating a potassium channel mediated cell proliferative disorder which comprises administering to a patient in need thereof, a pharmaceutically effective amount of a compound of claim 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, or 12, or a pharmaceutically acceptable salt or prodrug thereof.